



NEWS RELEASE

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NEW HDPE CONDUIT OVALITY

TECHNICAL DOCUMENT AVAILABLE

Details Measures to Resolve Ovality During
Power and Communications System Installation

IRVING, Texas – March 3, 2020 - The Plastics Pipe Institute, Inc. (PPI), has published a new document about ovality in high-density polyethylene (HDPE) conduit, including Cable in Conduit. Available on PPI's website, TN-61 "*Coilable HDPE Conduit Ovality and Coil-set*" provides information about what situations can cause ovality and coil-set in HDPE conduit products, and describes measures that can be taken by installers to correct or reduce ovality during installation. PPI is the major North American trade association representing all segments of the plastic pipe industry.

The amount of ovality in conduit that results from coiling can vary, based on several factors. The primary factor is the diameter of the conduit, while the secondary factor is the bend radius of the coiled conduit. Other factors which influence the percentage and permanence of the ovality include time stored in the coiled configuration, and ambient temperature and temperature cycles while in storage.

"It is important for users and installers to be aware that a certain amount of ovality is normal in a flexible product like HDPE conduit," explained Patrick Vibien, P. Eng., director of engineering for PPI's Power & Communications Division (PCD). "In fact, this flexibility is one of the major advantages of HDPE conduit, allowing nominal sizes from ½ to 6 inch to be coiled

onto reels or supplied as coils. Continuous lengths of HDPE conduit minimize joining, and are ideally suited for installation underground, either laid into an open trench and backfilled, or using trenchless installation techniques.”

The Technical Note, with illustrations, includes numerous technical definitions related to HDPE conduit and its properties, such as *Creep*, *Stress Relaxation*, and *Viscoelasticity*. It also describes how industry standards, such as ASTM F2160 and NEMA TC 7, allow a certain degree of ovality in these conduit products.

Continued Vibien, “Excessive ovality could restrict the installation of cables into installed conduit. Therefore, the TN lists several techniques for mitigating ovality, and also describes how to re-round conduit during installation using proven techniques, to prevent ovality from causing problems in the field.”

According to PPI President David Fink, “HDPE conduit, also known as PE conduit, is the preferred material to house and protect electrical power and communications cables in typical applications such as power utilities, telecommunications, CATV, SCADA, FTTH, ITS, highway lighting, and other underground utilities.”

Benefits of HDPE conduit, according to PPI, include availability in long lengths without joints, high strength, flexibility, proven reliability and installation toughness. PE conduit is widely used in trenching, horizontal directional drilling (HDD) and plowing installation methods. Published on PPI’s website directly at <https://plasticpipe.org/pdf/tn-61.pdf>, TN-61 is one of several PPI documents related to the design and installation of PE conduit, which are published as a service to the industry by PPI’s Power & Communications Division. Additional information about conduit for Power and Communications can be found online at www.plasticpipe.org/power-comm.

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Photo follows...



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About PPI:

The Plastics Pipe Institute, Inc. (PPI) is the major North American trade association representing all segments of the plastic pipe industry and is dedicated to promoting plastic as the materials of choice for pipe and conduit applications. PPI is the premier technical, engineering and industry knowledge resource publishing data for use in the development and design of plastic pipe and conduit systems. Additionally, PPI collaborates with industry organizations that set standards for manufacturing practices and installation methods.